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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,158	07/09/2001	David W. Smith	2000.054500	7068
23720	7590	01/24/2005	EXAMINER	
WILLIAMS, MORGAN & AMERSON, P.C. 10333 RICHMOND, SUITE 1100 HOUSTON, TX 77042			ZAND, KAMBIZ	
			ART UNIT	PAPER NUMBER
			2132	
DATE MAILED: 01/24/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,158

Applicant(s)

SMITH ET AL.

Examiner

Kambiz Zand

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-34 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/07/2002.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-34** have been examined.

Information Disclosure Statement PTO-1449

2. The Information Disclosure Statement submitted by applicant on 11/07/2002 has been considered. Please see attached PTO-1449.

Claim Objections

3. **Claims 14, 15, 31 and 32** are objected to because of the following informalities: typo error. Examiner suggests the following corrections:

Claims 14 and 31:

- Please delete the phrase "the decrypt" (line 2 claim 14; line 3 claim 31).

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

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1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. **Claims 1-34** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 15 and 25 of Copending Application No. 09/901,520. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

* Claim(s) 1, 15 and 25 of Copending Application 09/901,520 contain(s) every element of claim(s) 1, 22 and 34 of the instant application and as such anticipate(s) claim(s) 1, 22 and 34 of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " **ELI LILLY AND COMPANY v BARR LABORATORIES, INC.**,

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United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

6. **Claims 1-34** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 16 of Copending Application No. 09/901,212. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

* Claim(s) 16 of Copending Application 09/901,212 contain(s) every element of claim(s) 1, 22 and 34 of the instant application and as such anticipate(s) claim(s) 1, 22 and 34 of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " **ELI LILLY AND COMPANY v BARR LABORATORIES, INC.**, United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-7, 10-14, 16, 17, 20-26, 28-31 and 33-34** are rejected under 35 U.S.C. 102(b) as being anticipated by Ganesan et al (5,978,481).

As per claims 1, 14, 16, 22, 31 and 34 Ganesan et al (5,978,481) teach a communications system, a method and a modem comprising: a physical layer hardware unit adapted to communicate data over a communications channel in accordance with assigned transmission parameters, the physical layer hardware unit being adapted to receive an incoming signal over the communications channel and sample the incoming signal to generate a digital received signal; and a processing unit adapted to execute a standard mode driver in a standard mode of operation and a privileged mode driver in a privileged mode of operation, wherein the standard mode driver includes program instructions

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adapted to extract control codes from the digital received signal and configure the physical layer hardware assigned transmission parameters based on the control codes, and the privileged mode driver includes program instructions adapted to independently extract secure control codes from the digital received signal, determine an operational characteristic of the physical layer hardware unit, and signal a security violation in response to the operational characteristic being inconsistent with the secure control codes; including encryption and decryption procedure outlined in claims 14 and 31 (see fig.1-8 and associated text; col. 3, lines 26-44; col.5, line 51 to col.6 lines 28).

As per claims 2 Ganesan et al (5,978,481) teach the system, method of claims 1, wherein the privileged mode driver includes program instructions adapted to periodically determine the operational characteristic of the physical layer hardware unit and signal the security violation (see fig.1-4 and associated text).

As per claim 3 Ganesan et al (5,978,481) teach the system, method of claims 2, wherein the processing unit includes a timer adapted to generate an interrupt signal for invoking the privileged mode driver after a predetermined interval (see col.4, lines 32-52).

As per claim 4 Ganesan et al (5,978,481) teach the system, method of claim 2, wherein the standard mode driver includes program instructions adapted to periodically invoke the privileged mode driver (see col.4, lines 32-52).

As per claim 5 Ganesan et al (5,978,481) teach the system of claim 1, wherein the privileged mode driver includes program instructions adapted to compare the control codes generated by the standard mode driver to the secure control codes and signal the security violation in response to the control codes being different than the secure control codes (fig.3-8 and associated text).

As per claim 6 Ganesan et al (5,978,481) teach the system of claim 1, wherein the privileged mode driver includes program instructions adapted to query the physical layer hardware unit to determine the control codes sent by the standard mode driver, compare the control codes received by the physical layer hardware unit to the secure control codes, and signal the security violation in response to the control codes received by the physical layer hardware unit being different than the secure control codes (see fig.1-8 and associated text).

As per claim 7 Ganesan et al (5,978,481) teach the system of claim 1, wherein the physical layer hardware unit includes a radio configured in accordance with the assigned transmission parameters, and the privileged mode driver includes program instructions to identify an operating state of the radio, compare the operating state of the radio to the secure control codes, and signal the security violation in response to the operating state being inconsistent with the secure control codes (see fig.1-8 and associated text).

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As per claims 10 Ganesan et al (5,978,481) teach the system, method of claim 1, wherein the privileged mode of operation comprises a system management mode of operation (see col.6, line 62 to col.7, line 25).

As per claims 11 Ganesan et al (5,978,481) teach the system, method of claim 1, wherein the standard mode driver includes program instructions adapted to issue a signal to the processing unit to initiate a change from the standard mode of operation to the privileged mode of operation (see col.4, lines 32-52).

As per claims 12 and 29 Ganesan et al (5,978,481) teach the system, method of claims 11 and 22, wherein the signal comprises a system management interrupt (see col.4, lines 32-52).

As per claims 13 and 30 Ganesan et al (5,978,481) teach the system, method of claims 1 and 22, wherein the standard mode driver includes program instructions adapted to extract encrypted data from the digital received signal and decrypt the encrypted data to generate decrypted data including the control codes (see col.5, line 51 to col.6 lines 28).

As per claims 17 Ganesan et al (5,978,481) teach the system, method of claim 16, wherein the computer includes: a processor complex adapted to execute the program instructions in the standard mode driver and the privileged mode driver (see col.4, lines 32-52); a bus coupled to the processor complex (see col.3, lines

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26-44); and an expansion card coupled to the bus, the expansion card including the physical layer hardware (see col.3, lines 26-44).

As per claim 20 Ganesan et al (5,978,481) teach the system of claim 1, wherein the privileged mode driver includes program instructions adapted to prohibit further operation of the standard mode driver in response to identifying the security violation (see fig.5-7 and associated text).

As per claim 21 Ganesan et al (5,978,481) teach the system of claim 1, wherein the privileged mode driver includes program instructions adapted to prohibit further operation of the processing unit in response to identifying the security violation (see fig.1-8 and associated text).

As per claim 23 Ganesan et al (5,978,481) teach the method of claim 22, further comprising periodically generating an interrupt signal for transitioning the processing unit into the privileged processing mode after a predetermined time interval (see fig.1-8 and associated text).

As per claim 24 Ganesan et al (5,978,481) teach the method of claim 22, wherein determining the operational characteristic of the physical layer hardware unit comprises determining the control codes extracted from the digital received signal in the standard processing mode (fig.3-6 and associated text).

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As per claim 25 Ganesan et al (5,978,481) teach the method of claim 22, wherein determining the operational characteristic of the physical layer hardware unit comprises querying the physical layer hardware unit to determine the control codes used to configure the assigned transmission parameters in the standard processing mode (fig.2-8 and associated text).

As per claim 26 Ganesan et al (5,978,481) teach the method of claim 22, wherein the physical layer hardware unit includes a radio configured in accordance with the assigned transmission parameters, and determining the operational characteristic of the physical layer hardware unit comprises identifying an operating state of the radio (see fig.1-4 and associated text).

As per claim 28 Ganesan et al (5,978,481) teach the method of claim 22, wherein transitioning the processing unit into the privileged processing mode comprises transitioning the processing unit into a system management mode of operation (see col.4, lines 32-52).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

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subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 8, 9 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan et al (5,978,481) in view of Fleming III et al (6,212,360 B1).

As per claims 8, 9 and 27 Gansen teach all limitation of the claim but do not explicitly disclose wherein the transmission assignments include at least one of a power level assignment, a frequency assignment, and a time slot assignment. However Fleming, III disclose wherein the transmission assignments include at least one of a power level assignment, a frequency assignment, and a time slot assignment (see col.11, line 60 to col.12, line13).

Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modified Gansen so that the control code would have been power level assignment in order to adjust power in the modem to overcome rain fades in wireless or satellite systems (col.2, lines 39-46).

11. **Claims 15 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan et al (5,978,481) in view of Weidner et al (5,987,572).

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As per claims 15 and 32 Ganesan teach all limitation of the claim as applied above including that the processing unit includes a memory device adapted to store the encrypted data (see col.3, line 66 to col.4, line 17) but do not explicitly disclose that the standard mode driver includes instructions adapted to pass a pointer indicating a location of the encrypted data within the memory device to the privileged mode driver. However Weidner disclose the standard mode driver includes instructions adapted to pass a pointer indicating a location of the encrypted data within the memory device to the privileged mode driver (see col.4, lines 7-35).

Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Weidner's program instructions adapted to pass a pointer indicating a location of the encrypted data within the memory device to the privileged mode in order to protects data communicated between processor and the memory.

12. **Claims 18 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan et al (5,978,481) in view of Albrecht et al (6,510,521 B1).

As per claims 18 and 19 Ganesan teach all limitation of the claims as applied above but do not disclose the computer includes a system basic input output system (BIOS) memory adapted to store the privileged mode driver; and wherein the computer is adapted to load the privileged mode driver from the system BIOS

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into a protected memory location during initialization of the computer. However Albrecht disclose the computer includes a system basic input output system (BIOS) memory adapted to store the privileged mode driver; and wherein the computer is adapted to load the privileged mode driver from the system BIOS into a protected memory location during initialization of the computer (see col.4, lines 23-44).

Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to utilize Albrecht's BIOS system memory for storing the privileged mode driver in Gansen's protected memory in order to prevent unauthorized access to non-volatile storage (col.1, lines 27-32).

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S.Patent No. US (5,724,426); and

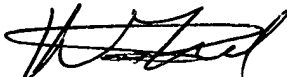
U.S.Patent No. US (5,784,633); and

U.S.Patent No. US (6,549,568 B1).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (571) 272-3811. The examiner can normally reached on Monday-Thursday (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The

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fax phone numbers for the organization where this application or proceeding is assigned as (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kambiz Zand

01/21/05